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ABSTRACT

The School Planning, Evaluation, and Communication System (SPECS) is an overall design for districtwide program assessment and development. It is both a way of interrelating planning and evaluation of individual programs and a way of comparing the outcomes of all district programs with the district's community-defined educational goals. Component One of the five SPECS components calls for a descriptive systems analysis of the school district and has two major objectives. The first is to collect and display information about a district's current functions, activities, and programs. The second is to specify the levels of programs for which cost data and program outcome and process data will be documented. The three ways to implement Component One are through a full systems analysis of all programs, functions, and activities; a limited function analysis of the program structure; and a function analysis based on a fiscal chart of accounts. This implementation booklet on Component One is designed to be used in conjunction with the other four components of SPECS or alone as a discrete set of activities to be undertaken by a school district. (Author/JM)

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SPECS 1

Component One: A Systems Analysis of a School District

John M. Nagle
Harold E. Walker
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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) AND USERS OF THE ERIC SYSTEM."

EA 011 374

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Preface

SPECS is a comprehensive set of procedures and materials designed to facilitate program planning and evaluation in schools. Initial development of the system began in 1969. It was implemented on a pilot basis in South Lane School District, Cottage Grove, Oregon, beginning in 1970, and thoroughly revised during 1974 and 1975.

To help personnel in a district learn more about SPECS, plan for its implementation, and begin to make any or all of its five components operational, several different kinds of materials have been developed. They include an illustrated monograph entitled **SPECS: What It Is and What It Does**; a series of implementation booklets relevant to each component of the system; and a set of operational forms for documenting program plans and results.

As the implementation booklet for Component One of SPECS, this document describes the rationale, the two major objectives, and three alternative approaches for making the component operational. Component One is designed to be used in conjunction with the other four components of SPECS or alone as a discrete set of activities to be undertaken by a school district.

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Jeff Roxberg
Age 7
Felt Tip Pen

1. Rationale

Five Components

Crucial to SPECS is its overall design for district-wide program assessment and development. The design suggests both a way of interrelating planning and evaluation of individual programs and a set of procedures for comparing the outcomes of all district programs with the district's community-defined educational goals.

The monograph entitled **SPECS: What It Is and What It Does** includes a detailed description of that design, but it may be useful here to review it briefly. As illustrated in Figure 1, the first three components of SPECS constitute its operating subsystem and are primarily the responsibility of a school district's professional staff of teachers and administrators. Taken together, they encourage systematic program planning and evaluation and the production of explicit, documented information about the "what is" state of a district's operating programs — what they are, how they are interrelated, their plans, and their results. Component Four, the monitoring subsystem of SPECS, solicits views from the district's community on the "what is preferred" state of district programs. And Component Five, the policy-making subsystem of SPECS, encourages the district's board of education to use this documented information about "what is" and "what is preferred" as a basis for identifying and resolving the district's most critical needs.

The overall design of SPECS projects and yet simultaneously interrelates the different prerogatives of a district's professional staff, lay citizens, and school board members. For example, program planning and evaluation by the district's teachers and administrators, and broad goal definition by representatives of its larger community are separate and distinct activities. There is no prescribed order in which they must occur, and neither has more intrinsic worth than the other. In addition, although both sets of activities generate information which is essential to assessing district goals and identifying high priority needs, it remains for a district's board of education to identify and resolve the most critical discrepancies between program outcomes and community expectations.[1]

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[1] See the monograph entitled **SPECS: What It Is and What It Does** for a more detailed description of the conceptual framework, five components, and basic intentions of SPECS — School Planning, Evaluation, and Communication System.

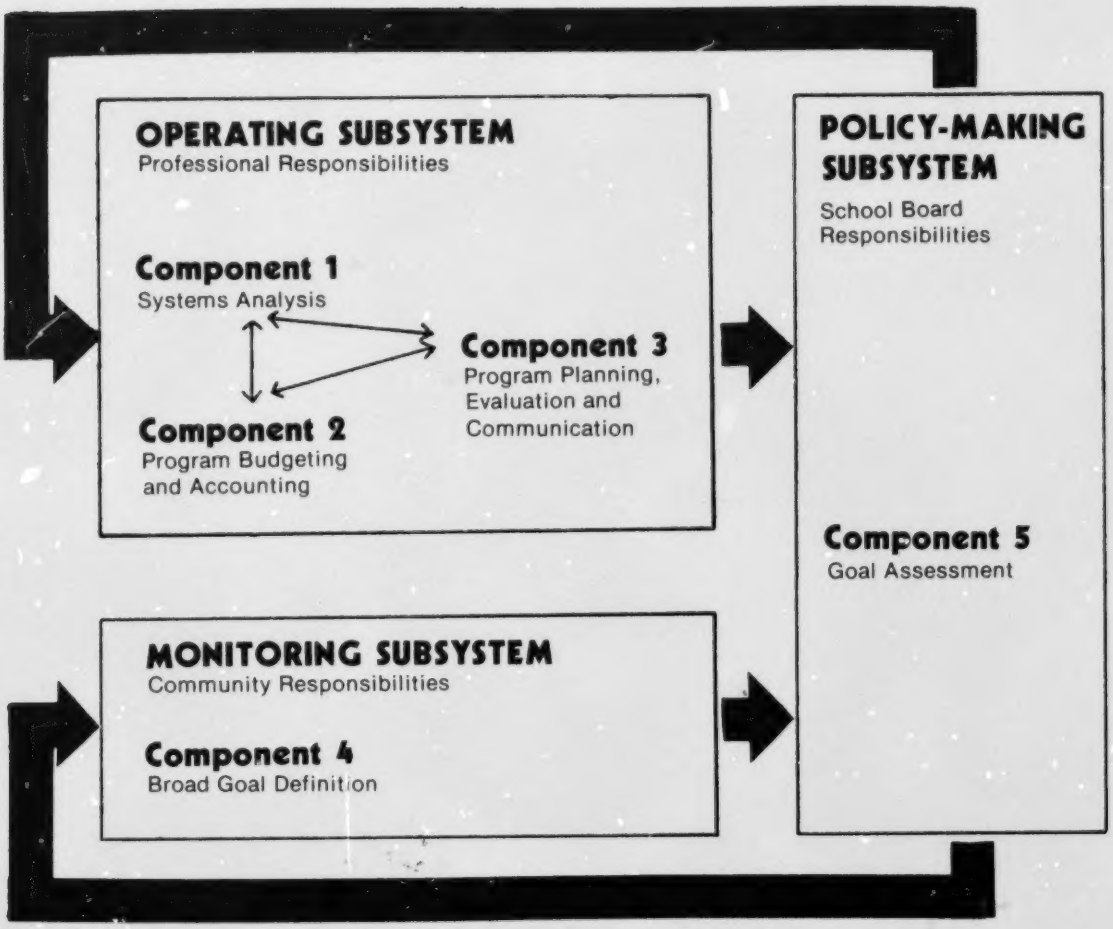


Figure 1: The SPECS Design

Two Major Objectives

Component One of SPECS calls for a descriptive systems analysis of the school district. It requires collection and display of information about the district's current array of instructional and non-instructional functions, activities, or programs — what they are, where and when they occur, who is responsible for each, and, most important, how they are interrelated. To generate this information about the district's current "program structure," district personnel begin by identifying a few broad categories of activities, and then they disaggregate each of these broad categories into levels of increasingly specific activities.

In addition, Component One requires district personnel to answer the following question: "For which particular clusters of operating programs do we want to collect desired and actual outcome, process, and input data, and then use these data for systematic program planning, evaluation, replanning, and articulation?"

The implementation of Component One has two major objectives:

1. To collect and display information about a district's current array of instructional and noninstructional functions, activities, or programs — what they are, where they occur, and how they are interrelated. The desired product of this effort is a visual display — for example, a flowchart or outline — which indicates clearly the hierarchical relationships among the district's operating programs, and constitutes the district's program structure for purposes of planning, budgeting, cost accounting, and evaluation; and
2. To specify the levels of programs in the district's program structure for which cost data and program outcome and process data will be documented. This information can later be used in Component Two for program budgeting and cost accounting and in Component Three for program planning and evaluation.

Three Approaches

This booklet suggests three alternatives for making Component One operational. The first approach, **A Full Systems Analysis**, while being the most time-consuming, provides a district with two products: a detailed set of information about the district and a visual display of the structure of the district's programs, functions and activities. The second approach, **A Limited Function Analysis**, results in a visual display of the district's program structure. And the third approach, **A Function Analysis Based on a Fiscal Chart of Accounts**, provides a program structure especially suitable for program budgeting and program cost accounting.

Examples from fictitious school districts have been presented to illustrate the type of information which is made available using each of the three alternative approaches. In reviewing these materials, attempt to relate them to your own school district. Which alternative is most appropriate? Which will provide the most valuable information for your district? How can your district get the most "mileage" out of Component One? Could one of these approaches be modified to better suit your district's needs?

Franz Goebel
Age 11
Watercolor

10

2. A Full Systems Analysis

This approach to Component One involves district personnel in a two-step process. First, an attempt is made to develop as complete a description as possible of the district's many on-going programs or functions — what they are, when and where they occur, who is involved in them or responsible for them, what their various subfunctions are, and, perhaps most important, how they are interrelated. Second, given this comprehensive description of the district, district personnel derive a visual display of the district's multi-level program structure.

Describing the District

THE DISTRICT FUNCTION QUESTIONNAIRE

Development of a comprehensive description of the district's ongoing programs or functions requires collection and analysis of a good deal of data. In order to illustrate how this data collection task might be accomplished in this first alternative approach, the activities of the fictitious Emerald School District will be examined.

Before beginning the actual collection of data, the first step was to list the major function areas in the district. In Emerald, the focus was on nineteen function areas typically found in many school districts:

1. Regular curriculum — classroom teaching
2. Special education
3. Cocurricular activities
4. Special instructional programs and projects
5. Improvement of curriculum, instruction, and administration
6. Library services
7. Audio-visual services
8. Attendance services
9. Health services
10. Guidance and counseling services
11. Food services
12. Pupil transportation services
13. Board of education services
14. Office of the superintendent
15. Other central office activities
16. School administration and coordination
17. Facilities acquisition and development
18. Operation and maintenance
19. Community service activities

After these function areas had been identified, the next task was the development of a **District Function Questionnaire**. This included a two-part examination of **each** of the function areas: a brief definition of the function area and a series of questions related to the function area. The questions included were in reference to the scope of the function, its organization, the personnel involved, and the level of detail required for purposes of program planning and evaluation. Responses to each of these questions would later be used to prepare a comprehensive description of the district's current instructional and noninstructional functions and programs.

In the following pages we have included the District Function Questionnaire which was used in the Emerald School District.

District Function Questionnaire
Emerald School District

1. Regular Curriculum-Classroom Teaching

Includes that portion of the district's curriculum which has been developed for children who do not have exceptional physical, mental, psychological, or social characteristics; includes only those activities which take place in or are related to the classroom setting and are ultimately a responsibility of classroom teachers.

Who teaches what? How is the district's regular curriculum organized--by grades, by subject areas, by such divisions as elementary and secondary education, or by some other categorization? How is the curriculum divided among schools? Who is responsible for the regular curriculum within each school, and who is ultimately responsible across the district? What is the most meaningful way to disaggregate regular curricular activities--by grades, by subject areas, by such sub-activities as "formal instruction, instructional preparation, and noninstructional activities," or by some other category scheme?

Response:

2. Special Education

Includes that portion of the district's curriculum which has been developed specifically for exceptional children, those who <u>do</u> have special physical, mental, psychological, and social characteristics or attributes; includes both classroom and outside-classroom activities.

How is the district's special education program organized--by grades, by subject areas, by attributes of children, or by some other

categorization? How does the district handle homebound instruction? Who teaches special education, where is it taught, and who is ultimately responsible for the operation of the district's total special education program? Are distinctions drawn between special education teachers and other teachers? How can special education activities be most meaningfully disaggregated--by kinds of handicap, grade level, content areas, or by some other category scheme?

Response:

3. Cocurricular Activities

Includes those activities in schools which are noncredit and which are usually related to the total curriculum, but carried out in addition to the regularly scheduled school program; includes activities which may be of an academic, athletic, musical, service, or social nature.

What specific cocurricular activities occur within each school in the district? What personnel are associated with each, and for what portion of their time? Who coordinates cocurricular activities within schools and/or across the district? Who is ultimately responsible for the district's cocurricular activities? And what is a meaningful way to disaggregate them--by schools, by such general categories as "athletic, academic, social, musical, service," by specific sub-activities, or by some other category scheme?

Response:

4. Special Instructional Programs and Projects

Includes those instructional activities which may be experimental in nature or programs which are designed to supplement or enrich regular instruction.

Does the district operate a computer-assisted instructional (CAI) program? If so, how extensive is it? What instructional areas, schools, and personnel are involved, and to what extent? How can this CAI activity be disaggregated most meaningfully--by building, by grade level, by instructional area, by sub-activities, or by some other category scheme?

Does the school provide educational television services? If so, how extensive are these services? What instructional areas, schools, and personnel are involved, and to what extent? How can these educational television services be disaggregated most meaningfully--by building, by grade level, by instructional area, by sub-activities, or by some other category scheme?

Does the school operate any other special instructional programs and projects? If so, what are they, how are they organized, who is involved in them, who is ultimately responsible for them, and how can they be most meaningfully disaggregated?

Response:

5. Improvement of Curriculum, Instruction, and Administration

Includes those activities related to the supervision of classroom teaching; the development of curriculum, instructional methodology, and in-service education programs; and the improvement of administrative and managerial procedures within both individual schools and the total school district.

What current efforts are being made to improve curriculum, instruction, and administration in the district? What specific curriculum projects are underway at both the school and district levels? How many individuals are involved in these projects, and how much time are they currently devoting to them? How is improvement of instruction regularly handled in the district's schools? Who is involved and to what extent? Are there any special projects underway that focus specifically upon instructional improvement? What particular efforts are being made to improve the administrative and managerial techniques employed within the schools and central office? Again, who is involved and to what extent? Who is ultimately responsible for improvement and development in the three major areas of curriculum, instruction, and administration? Finally, what is a meaningful way to disaggregate this set of activities--simply by "curriculum, instruction, and administration," by schools, by district-wide and school-level activities, by projects, by instructional or curricular subject areas, or by some other category scheme?

Response:

6. Library Services

Includes those activities related to the operation of a library or libraries maintained by the school district within schools; does not, however, include activities related to providing community public library services.

How are library services organized in the district and in the schools in the district? Where are the various individual library units located? How many and what kinds of personnel are associated with each operating library unit? Who is ultimately responsible for their operation--both within schools and across the district? Is it useful to distinguish between managing school libraries and teaching youngsters library skills? And what is a meaningful way to disaggregate library services--by schools, by buildings, by such sub-activities as "acquisition, circulation, and instruction," or by some other category scheme?

Response:

7. Audio-Visual Services

Includes those activities related to the operation of an audio-visual services department or unit; includes the actual operation of audio-visual equipment only if the personnel are normally associated with the audio-visual responsibility area; therefore does not include the operation of audio-visual equipment by classroom teachers in the normal course of their duties.

How are audio-visual services organized in the district and in schools of the district? Are they coordinated across the district, or does each building unit maintain an independent A-V department or unit? How many and what kinds of personnel are associated with

each operating unit? Who is ultimately responsible for providing audio-visual services in the district's schools? Who is responsible for repairing audio-visual equipment? And what is a meaningful way to disaggregate these services--by schools, by such sub-activities as "acquisition, dissemination, and maintenance," or by some other category scheme?

Response:

8. Attendance Services

Includes those activities related to the collection, maintenance, and reporting of attendance data.

How are attendance services handled in the district and in schools of the district? Is each school responsible for keeping its own attendance records? Is any effort made to coordinate attendance services across the district? How many and what kinds of personnel are responsible for attendance services? Who is ultimately responsible for them? And what is a meaningful way to disaggregate them--by schools, by such sub-activities as "administration of attendance services, data-collection and reporting, and home visits," or by some other category scheme?

Response:

9. Health Services

Includes those activities related to providing physical and mental health services which are not directly related to instruction; consists, therefore, of activities related to medical, dental, psychiatric, and nursing services.

What kinds of health services are provided by the district in its individual schools? Are any of these services subcontracted? How are they coordinated both within schools and across the district? How many and what kinds of personnel are responsible for providing them? Who is ultimately responsible for the district's total program of health services? And what is a meaningful way to disaggregate health service activities--by school buildings, by projects, by kinds of health services (dental, medical, psychological, etc.), by such sub-activities as "record keeping, examination, treatments, and referrals," or by some other category scheme?

Response:

10. Guidance and Counseling Services

Includes those activities related to helping pupils assess and understand their abilities, aptitudes, interests, environmental factors, and educational needs; includes helping pupils understand educational and career opportunities and then programming their school experiences in accordance with individual interests and goals; does not include psychological services or social services already included under Health Services.

How are the district's guidance and counseling services organized? Is there a defined program within each school, and is there a district-wide effort to coordinate the services provided in each school? How many and what kinds of personnel are responsible for providing

these services? What are their specific areas of responsibility? Who is ultimately responsible at the school and/or district level for the district's total guidance and counseling program? And what is a meaningful way to disaggregate that program--by school building, by such general sub-sctivities as "guidance and counseling," by a more detailed categorization like "record keeping, testing, consulting, and programming class schedules," or by some other category scheme?

Response:

11. Food Services

Includes those activities related to the management of food service programs for the school district and the preparation and serving of regular and incidental meals, lunches, or snacks in connection with social activities.

To what extent does the district provide food services for students and employees? Does the district sub-contract for these services or operate them as a separate activity within the district's organization? Are there food service facilities in all schools? How many and what kinds of personnel are associated with each operating food service unit? Who is ultimately responsible for their operation within schools and across the district? How involved, for instance, is each individual school principal in the food service unit in his school? And what is a meaningful way to disaggregate food services--by schools, by food service units, by such sub-activities as "food preparation and food delivery," or by some other category scheme?

Response:

12. Pupil Transportation Services

Includes those activities related to both the transportation of students between home and school and the transportation of students for instructional and/or cocurricular purposes; consists of such sub-activities as providing and maintaining pupil transportation vehicles, driving buses or other pupil transportation vehicles, supervising pupils in transit, maintaining loading and unloading points, dispatching buses, operating the bus control radio, and directing traffic.

Does the district operate a pupil transportation program? If it subcontracts, with whom? If it operates its own program, how extensive is it, and which schools depend upon it? How many and what kinds of personnel are employed to transport students between home and school? Who is ultimately responsible for coordinating the district's bus program? How involved, for instance, are individual building principals? Does the district maintain a bus shop, and to what extent does the district repair buses within that shop? Finally, what is the most meaningful way to disaggregate pupil transportation services--by schools, by route or zone numbers, by bus numbers, by such sub-activities as "vehicle acquisition, vehicle operation, vehicle maintenance, and vehicle repair," or by some other category scheme?

Response:

13. Board of Education Activities

Includes those activities related to the normal functions of the Board of Education.

What specific activities are associated directly with the Office

of the Board of Education? Who is ultimately responsible for them? How many and what kinds of personnel are associated with the Office of the Board? And what are meaningful ways to disaggregate Board activities--by such sub-activities as "legal services, clerical services, audit services, and so forth," or by some other category scheme?

Response:

14. Office of the Superintendent

Includes those specific activities related directly to the responsibilities of the Superintendent of Schools.

For what specific central office activities is the Superintendent of Schools directly responsible? Furthermore, for what specific activities that occur in the schools is he or she directly responsible? How many and what kinds of personnel are associated with his or her office? And what is a meaningful way to disaggregate the Superintendent's areas of responsibility?

Response:

15. Other Central Office Activities

Includes those activities conducted in the Central Office not included in the Board of Education and Office of the Superintendent activities.

What are the other major central office activities? What personnel are associated with them? Who is ultimately responsible for their operation? And what is a meaningful way to disaggregate

them? For instance, central office activities might be disaggregated in the following ways:

(a) Research and Planning Services might be disaggregated by project numbers, by schools, or by project types;

(b) Business Affairs might be disaggregated by such sub-activites as "budgeting, receiving and disbursements, payroll, auditing, purchasing, and so forth;"

(c) Information Services might be disaggregated by project numbers, project types, or by such sub-activities as "creating, reproducing, and disseminating;"

(d) Personnel Administration might be disaggregated by types of staff "certified" or "noncertified" or by such sub-activities as "recruiting, hiring, record keeping, and evaluating;" and

(e) Data Processing might be disaggregated by project types, service types, or specific sub-activities.

Response:

16. School Administration and Coordination

Includes those noninstructional activities which are related to administering a school building and which are a responsibility of a building principal.

What sub-activities can be defined within the general area of building administration and coordination? How does a principal spend her/his time? Who is responsible for coordination among the district's individual school buildings, and what portion of her/his time is devoted to this responsibility? What additional personnel assist her/him? And what is a meaningful way to disaggregate activities related to building administration--by individual buildings, by specific sub-activities, or by some other category scheme?

Response:

17. Facilities Acquisition and Development

Includes those activities related to the planning, construction, and renovation of school district sites, buildings, and other improvements.

Who coordinates and is responsible for the acquisition and development of school district sites and buildings? What other personnel are involved directly in these decisions? What is a meaningful way to disaggregate this activity--by building and site number, by such sub-activities as "site acquisition, site development, building acquisition, and building development," or by some other category scheme?

Response:

18. Operation and Maintenance

Includes those activities related to the operation and maintenance of school district sites, buildings, equipment, and other improvements.

How are the district's maintenance and operation activities organized--by activity, by school, by task? For instance, do the operation and maintenance activities attend to sites, buildings, and equipment, or to just one or two of these major groups? Do

they attend not only to operation and maintenance, but also to repair where relevant? How many and what kinds of personnel are associated with them? Who is ultimately responsible for them--each building principal at her/his school or a district-wide coordinator? If the latter, to what extent is each building principal involved in the district's operation and maintenance activities? Does the district maintain a shop? To what extent does it contract repair work? Finally, what is a meaningful way to disaggregate operation and maintenance activities--by school building and district sites, by kinds of equipment, by such sub-activites as "site operation, site maintenance, building operation, and building maintenance?" or by some other appropriate category scheme?

Response:

19. Community Service Activities

Includes all those services provided by the school district for the community as a whole or some segment of the community; includes, therefore, such services as community recreation programs, civic activities, public libraries, programs for the care of preschool children, community welfare programs, adult education programs, and services to nonpublic schools.

In what ways does the district currently provide community-wide services? For instance, does it operate an after-school recreation program? Does it operate an adult school? Is it currently involved in other special community projects? Does it operate the community's public library? How many and what kinds of district personnel are associated with them? Who is ultimately responsible for their total

operation? And what is a meaningful way to disaggregate them--by activity or project, by building or location, by such sub-activities as "recreation, library, welfare, etc.," or by some other category scheme?

Response:

Additional Information

Finally, what additional information is available in the district regarding (a) enrollment and curriculum offerings in each school, (b) administrative structure, (c) personnel assignments, and (c) class schedules?

THE DISTRICT FUNCTION DESCRIPTION

In Emerald School District, responsibility for the completion of the District Function Description was given to the district's SPECS Coordinator whose immediate task was to obtain responses to the nineteen sets of questions which the Questionnaire had raised. The Coordinator was able to supply some of the responses from his own knowledge of the district, but for the most part he relied on information obtained from other personnel in the district — the Superintendent, central office personnel, building principals, and others. Sometimes a phone call was all that was required, and at other times he found a more intensive interview with key people to be necessary.

After the Questionnaire had been completed, the Coordinator produced the District Function Description for Emerald. Part of this description has been included in the following pages. It is important to note that, although only two sections of the total description are shown here, a similar set of responses was obtained for each of the remaining seventeen function areas.

District Function Description
Emerald Board of Education

1. Regular Curriculum/Classroom Teaching

Definition: *Includes that portion of the district's curriculum developed for children who do not have exceptional physical, mental, psychological, or social characteristics. Includes only those activities that take place in or are related to the classroom setting and are a direct responsibility of classroom teachers.*

Questions: *Who teaches what? How is the district's regular curriculum organized--among and within schools? Who is responsible for it within each building, and who is ultimately responsible for it across the district? And what are the most useful categories for disaggregating regular curriculum/classroom teaching? For example: elementary and secondary education, content areas, grades, levels, courses, classrooms, specific curricular programs, etc.*

Response: Elementary education occurs in seven schools in Emerald School District. There are six grade levels in each school and eleven instructional sub-activities within each grade level, including nine instructional areas, instructional preparation, and noninstructional

activities. The nine instructional areas include arithmetic, language arts, music-art, physical education, reading, science, social studies, spelling-writing, and "other instructional areas." There are three elementary school music specialists and three elementary school reading specialists in the district, each of whom is directly responsible to building principals and divides his or her time among several elementary school buildings.

Secondary education occurs in two schools in Emerald, one a junior high (grades 7-9) and the other a senior high (grades 10-12). The grade levels in the secondary schools are not considered to be as useful for planning as the individual subject matter areas and their related courses of instruction. These subject matter areas and related courses currently include:

Lincoln Junior High

Foreign Language: French I, II; Spanish I, II
Homemaking: Home Economics I, II
Industrial Arts: Shop I, II
Language Arts: 7th, 8th, 9th
Mathematics: 7th, 8th, 9th
Music-Art: Music, Art
Physical Education: Boys, Girls
Science: 7th, 8th, General Science
Social Studies: 7th, 8th, 9th
Other Instructional Areas

Blackwood Senior High

Art: Art, Crafts, Graphics
Business Education: Bookkeeping I, II; Business English, Business Law, Business Math, Office Machines, Shorthand, Typing, Advanced Typing
Driver's Education
English: Creative Writing; English 10, 11, 12; Journalism; Speech
Foreign Languages: French I, II, III; Spanish I, II, III
Home Economics: Home Economics I, II
Vocational Education: Architectural Drafting, Shop
Mathematics: Algebra I, II, III; Math Essentials, Plane Geometry, Solid Geometry

Physical Education: Boys, Girls
Science: Biology, Physical Science, Physics
Social Sciences: American Government, American History, Economics, Psychology, World History

In both junior and senior high school, distinctions are drawn among "classroom teaching," "instructional preparation," and "cocurricular activities." Grade level chairpersons and department heads are responsible for the regular curriculum at the subject matter level in the elementary and secondary schools respectively, building principals are responsible at the individual school level, and the district's Director of Instruction is responsible at the district level.

2. Special Education

Definition: *Includes that portion of the district's curriculum that has been developed for exceptional children--those who have special physical, mental, psychological, or social characteristics--and includes both classroom and outside-classroom activities.*

Questions: *How is the district's special education curriculum organized--among and within schools? Who teaches special education and where? How does the district handle homebound instruction? Who is responsible for special education instruction within each building, and who is ultimately responsible for it across the district? And what are the most useful categories for disaggregating special education? For example: attributes or characteristics of students, nature of handicap or exception, age of students, content areas, grades, levels, courses, classrooms, specific curricular programs, etc.*

Response: In Emerald School District, activities related to special education are part of "Instruction," one of the district's five major categories or function areas, and are organized in terms of homebound instruction and classroom instruction. Homebound instruction is coordinated at the district level by the Director of Instruction

and involves only two special teachers. Because of the district's size, only three schools operate special education classes:

(1) Good Elementary School serves all elementary school students. Approximately 30 students are currently enrolled in two special education classes in the school, one for grades 1-3, the other for grades 4-6.

(2) Lincoln Junior High serves from 50-60 special education students enrolled in five classes for grades 7-9.

(3) And Blackwood Senior High currently serves a total of 45 special education students in grades 10-12. Three teachers each teach one class for a three-period block of time.

Both homebound instruction and formal classroom instruction involve the district's special education teachers in instructional activites. Within the three schools, building principals are responsible for the special education classes; one of the special education teachers coordinates the curriculum throughout the three schools; and the district's Director of Instruction is responsible for the total special education program.

3. and so forth.

MAJOR FUNCTION AREAS

After descriptions had been developed for all nineteen function areas, staff members in the Emerald School District met to determine the most useful way to group the original nineteen function areas into several major function areas. The staff assembled for this task included the Superintendent, the Business Manager, the Director of Instruction, the Director of Auxiliary Services, the Director of Community Services, and the SPECS Coordinator. During this deliberation, no attempt was made to examine personnel responsibilities. Rather, attention was directed toward the functions which the district was required to perform. The primary question for consideration was, "How can the nineteen function areas of the district be grouped most usefully to provide the best service for the district?"

As a result of this activity, Emerald's nineteen function areas were clustered into five major categories:

1. Instruction
Including regular curriculum-classroom teaching, special education, cocurricular activities, and special instructional programs and projects;

2. Instructional Support
Including improvement of curriculum, instruction, and administration, library services, audio-visual services, attendance services, health services, guidance and counseling services, food services, and pupil transportation services;

3. Administration and Coordination
Including Board of Education activities, the office of the superintendent, other central office activities, and school administration and coordination;

4. General Services
Including facilities acquisition and development, and facilities maintenance and operation; and

5. Community Services
Including adult education and community recreation.

Flowcharting

Having completed the District Function Description and having grouped the nineteen function areas into five major areas, personnel in the Emerald School District next began to prepare a graphic display of their findings. They decided to develop a flowchart of district functions which would display the hierarchical relationships among those functions. During their meetings they discussed the possibility of using an outline, a narrative abstracted from the District Function Description, and other types of charts that might have been used to display their findings, but these were rejected as being less useful to the district.

Soon after this decision had been made, the same group of district personnel began the flowcharting task. They asked themselves the question, "How does each of the five function categories specifically 'disaggregate' or break out into subfunctions?" For example, how does "Instruction," one of the function categories, break out into second level functions? Then, how does each of these second level functions disaggregate into a set of third level functions? As district personnel answered these questions by referring to the District Function Description, they began to develop branching flowcharts that showed the disaggregation of each function area in the district.

The set of flowcharts which was developed in Emerald School District is included here. In examining those flowcharts, notice that the category at the far left represents one of the most general or major functions which the district had identified. Thus, moving from left to right through the flowchart, the level of specificity increases.

EMERALD SCHOOL DISTRICT FLOWCHART OF DISTRICT FUNCTIONS
Chart #1: All Functions Disaggregated to Level Two

LEVEL ONE	LEVEL TWO	LEVELS THREE TO FIVE
INSTRUCTION	Regular Education Special Education	(For further breakout, see Charts #2, 3, and 4)
INSTRUCTIONAL SUPPORT	Educational Resources Improvement of Curriculum, Instruction, and Administration Pupil Personnel Services	(For further breakout, see Chart #5)
ADMINISTRATION AND COORDINATION	Board of Education School Administration and Coordination District Administration and Coordination	(For further breakout, see Chart #6)
GENERAL SERVICES	Facilities Acquisition and Development Facilities Maintenance and Operation Equipment Maintenance and Repair	(For further breakout, see Chart #7)
COMMUNITY SERVICES	Recreational Programs Adult Education	

Chart #2: Instruction All Schools, Emerald School District

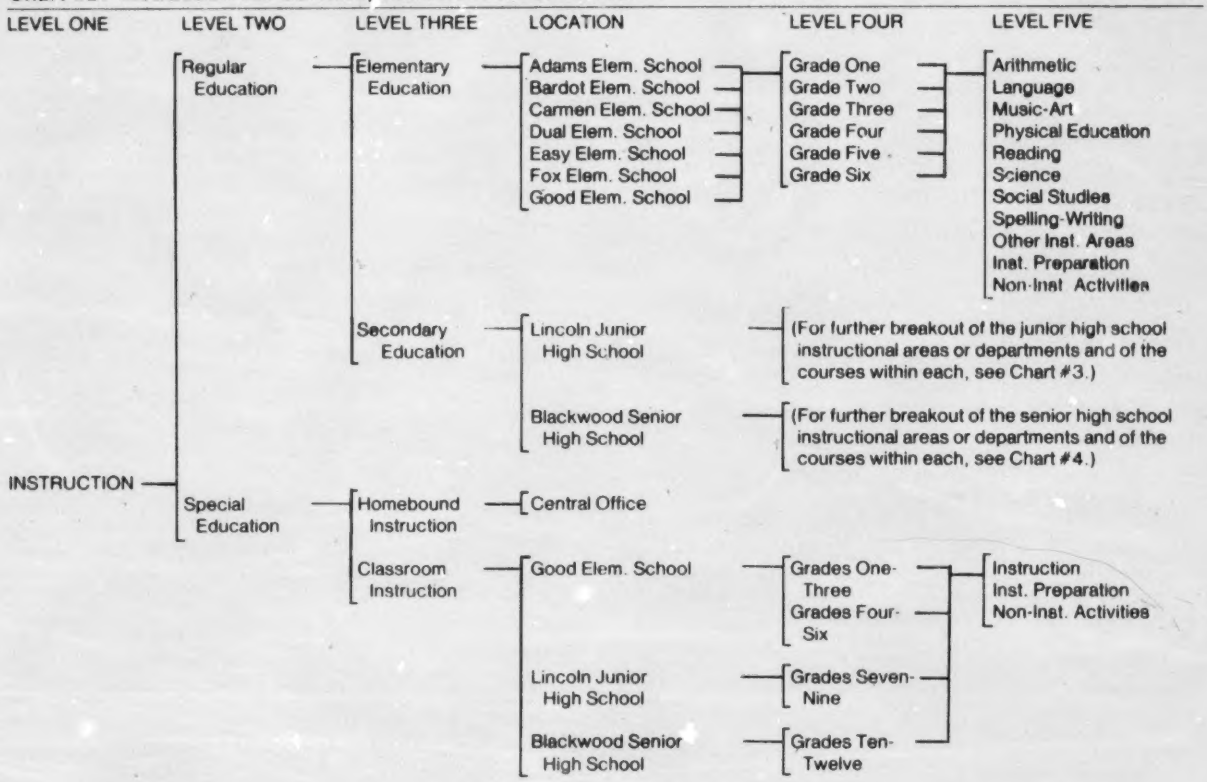
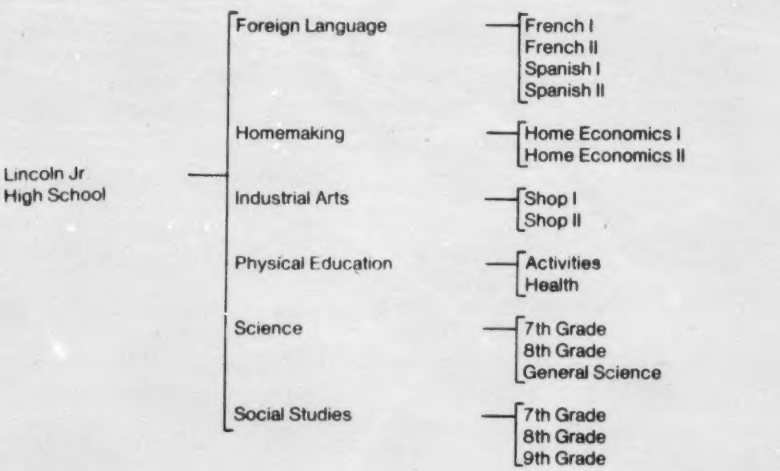


Chart #3: Instruction, Lincoln Junior High School, Emerald School District



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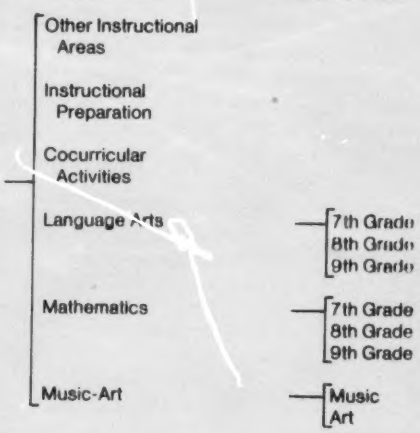


Chart #4: Instruction, Blackwood Senior High School, Emerald School District

LOCATION	LEVEL FOUR	LEVEL FIVE
Blackwood Sr. High School	Art	Art Crafts Graphics
	Business Education	Bookkeeping I Bookkeeping II Business English Business Law Business Math Office Machines Shorthand I Typing I Advanced Typing
	Driver Education	
	English	Creative Writing English 10 English 11 English 12 Journalism Speech
	Vocational Education	Architectural Drafting Shop
	Mathematics	Algebra I Algebra II Algebra III Math Essentials Plane Geometry Solid Geometry
	Physical Education	Activities Health
	Science	Biology Physical Science Physics
	Social Sciences	American Government American History Economics Psychology World History
	Instructional Preparation	
	Cocurricular Activities	
	Foreign Languages	French I French II French III Spanish I Spanish II Spanish III
	Home Economics	Home Economics II Home Economics III

Chart #5: Instructional Support

LEVEL ONE	LEVEL TWO	LEVEL THREE	LOCATION
INSTRUCTIONAL SUPPORT	Educational Resources	Library Services	Adams Elem. School Bardot Elem. School Carmen Elem. School Dual Elem. School Easy Elem. School Fox Elem. School Lincoln Jr. High School Blackwood Sr. High School
		Audio-Visual Services	
	Improvement of Curriculum, Instruction, and Administration	Curricular Development	Good Elem. School Blackwood Sr. High School Central Office
		Instructional Development	(Same as breakout for Library Services)
		Administrative Development	Lincoln Jr. High School Blackwood Sr. High School Central Office
	Pupil Personnel Services	Health Services	(Same as breakout for Administrative Devel.)
		Attendance Services	Adams Elem. School Bardot Elem. School Carmen Elem. School Dual Elem. School Easy Elem. School Fox Elem. School Good Elem. School Lincoln Jr. High School Blackwood Sr. High School Central Office
		Food Services	
		Guidance and Counseling Services	(Same as breakout for Administrative Devel.)
		Pupil Transportation Services	Central Office

Chart #6: Administration and Coordination

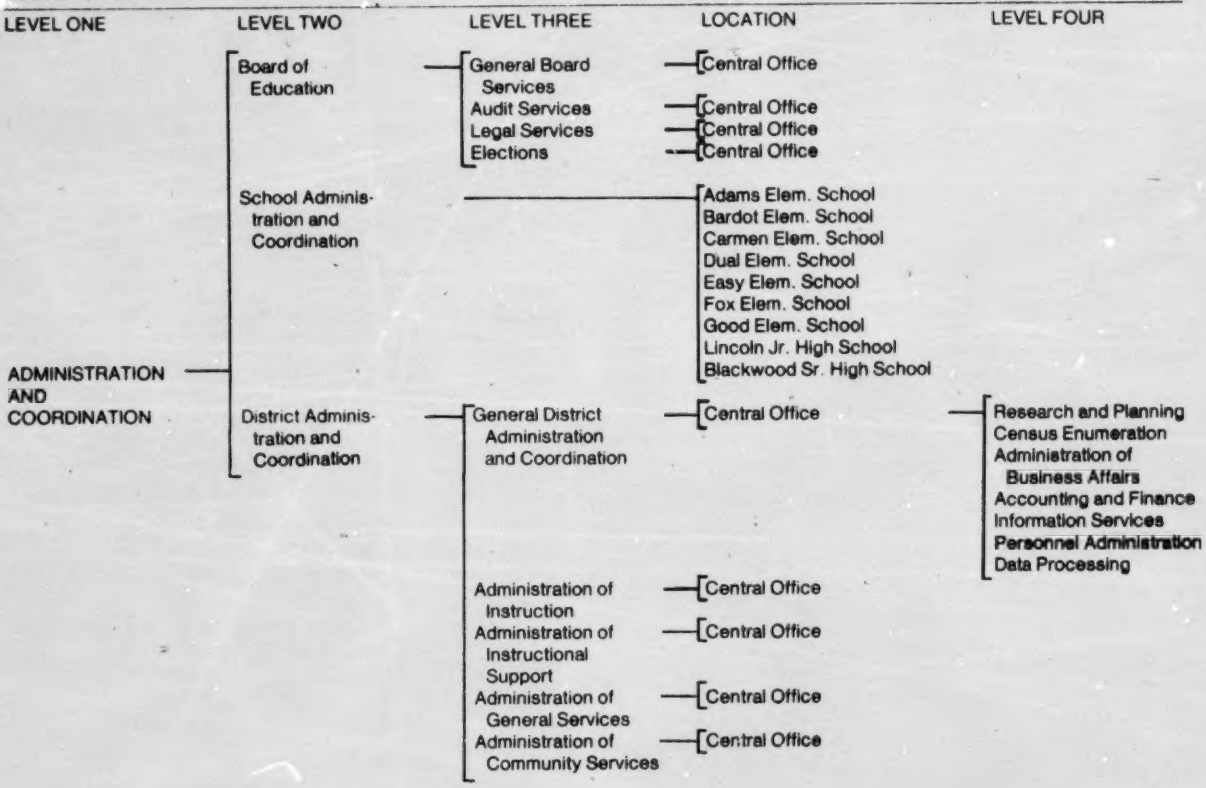
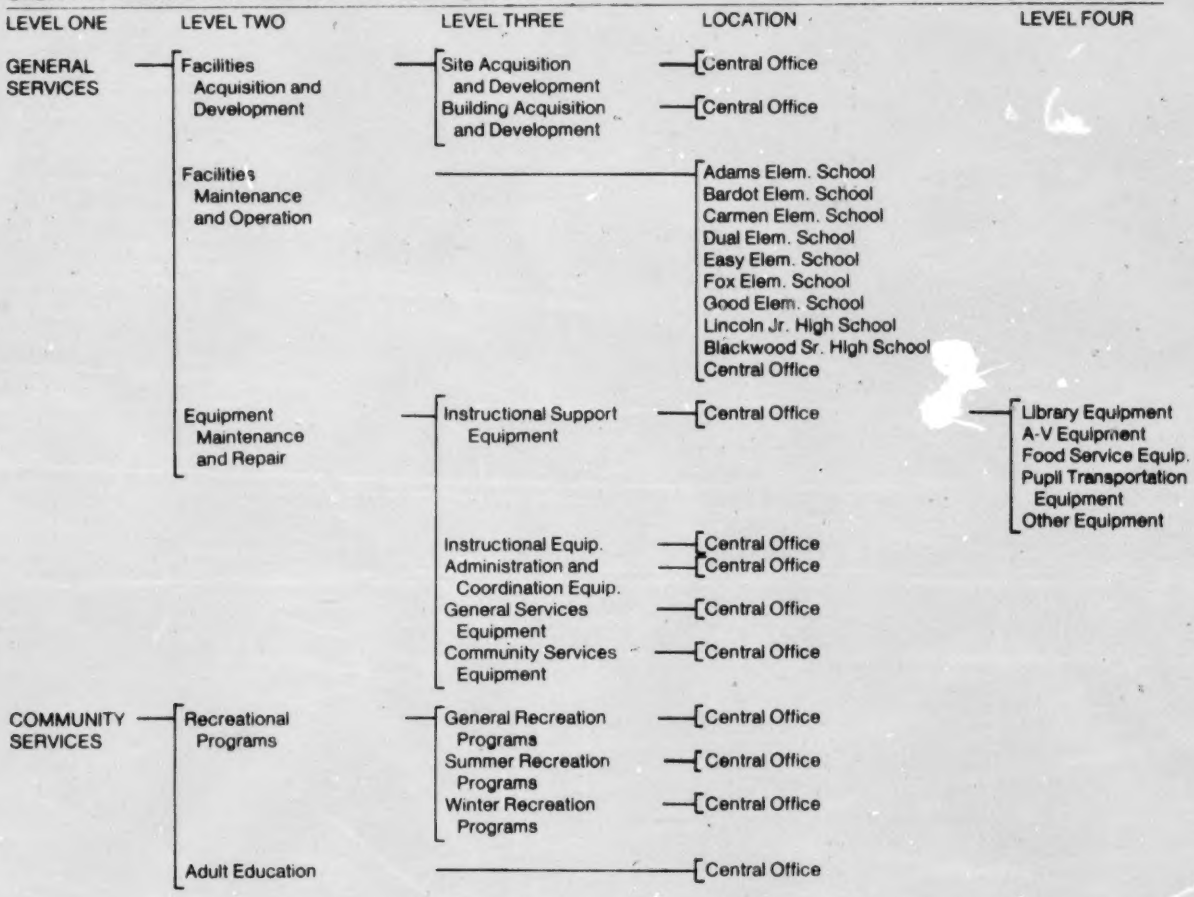


Chart #7: General Services and Community Services



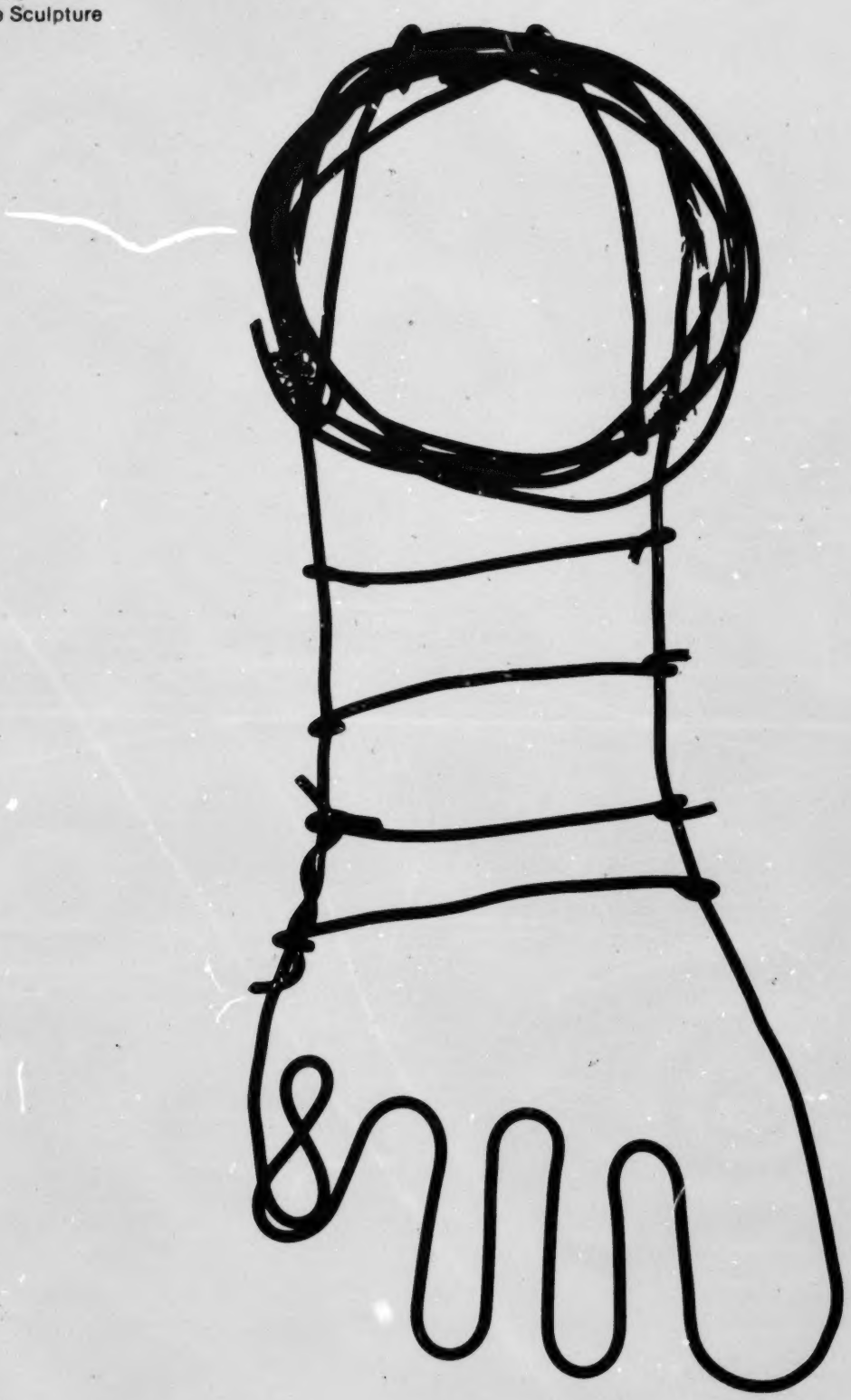
Summary

This first approach to Component One — a Full Systems Analysis of a school district — is based on the assumption that district personnel wish to gather and display detailed information about the district's current activities and programs — what they are, where and when they occur, who is responsible for each, and how they are interrelated. We have suggested two steps for this data-gathering and data-analysis task. First, a District Function Questionnaire is completed which focuses on the major function areas typically found in school districts and which raises specific questions for each function area regarding its organization, scope, personnel, and disaggregation into subfunctions. The completed District Function Description serves two purposes:

1. As a data bank of information about the district's on-going programs and functions; and
2. As a starting point from which district personnel are able to construct branching flowcharts.

After the Description has been completed, the second task is to complete a set of flowcharts which graphically illustrate the district's function areas and their subfunctions, and designates the specific level of functions for which input data will be collected and reported in Component Two and for which outcome and process data will be collected and used in Component Three.

Mark Fisk
Age 16
Wire Sculpture



3. A Limited Function Analysis

The second approach to Component One — A Limited Function Analysis — is typically used by districts that have need for a display that indicates the hierarchical relationships among programs in the district. Such a display shows the district's program structure for program planning, cost accounting and evaluation. The attempt is not to collect a broad array of data from personnel in the district, but to prepare a flowchart of the district's activities, in whole or in part.

Three Levels of Analysis

A Limited Function Analysis may be used at three levels: 1) district, 2) building, or 3) classroom. In each case, different personnel are involved, different purposes are pursued, and different results are produced.

At the **district level**, the product is a display of all district functions similar to that which was presented in the Emerald School District's flowcharts. At the **building level**, the result is a display of the relationships among the programs offered in a single school. This resembles the total district array, but the focus is narrower and the relationships among the programs offered in other schools are not shown. And at the **clasroom level**, the analysis provides a display of a given teacher's individual program with a breakout of the program's constituent objectives and sub-objectives.

The major product which is common to all three levels of this second approach is a graphic display of major areas of concern broken out into various sub-areas. To illustrate the Component One work entailed in this approach, the documents developed in another district will be presented. In this case, the work of the Sapphire District will be shown as that district implemented Component One at the district, building, and classroom levels.

[2]Noninstructional areas were treated in the same way but for ease of narration will be omitted here.

DISTRICT

In beginning a Limited Function Analysis of the Sapphire District, a task force comprised of the Superintendent, the Curriculum Coordinator, the Business Manager and the SPECS Coordinator met to identify the major function areas of the district. As was the case in the Emerald District, Sapphire personnel identified five major functions: 1) Instruction, 2) Instructional Support, 3) Administration and Coordination, 4) General Services, and 5) Community Services. After these major function areas had been identified, the task force sought additional input from other relevant individuals in the district in an effort to disaggregate each function area into its component parts. For instance, the Curriculum Coordinator asked building principals to help identify the second, third, fourth, and fifth level subfunctions in the major function area, Instruction. The superintendent supplied information concerning the area of Administration and Coordination and the Business Manager and the SPECS Coordinator assembled data for the remaining areas. With this detailed information, the SPECS Coordinator was able to prepare a set of flowcharts which illustrated the function breakdown of the district. Because of their close resemblance to those developed in the Emerald School District, we have not included the flowcharts for Sapphire.

BUILDING

In Sapphire School District, the procedures used to conduct a Limited Function Analysis at the building level were similar to those used at the district level. Each school principal and his or her administrative staff first identified the major instructional areas which were currently being offered in their school.[2] Then, depending upon the purposes for which the display would be used, each instructional area was disaggregated to the appropriate level. For instance, staff in some schools wanted to display only the functions for which cost data would be collected and so they decided to disaggregate each instructional area to the level of grades in the elementary schools and departments in the high schools. On the other hand, staff in other schools wanted to display the function areas for which program outcome data and program process data would be collected, and therefore, they decided that it would be more appropriate to disaggregate each area to the level of individual classrooms in the high schools.

As an example, the procedures followed and products developed at Lakeview Elementary School, one of six elementary schools in the Sapphire School District, have been included.

Before the staff began the implementation of Component One of SPECS, the school principal and a small group of staff members decided it would be most helpful if a clear, accurate identification was made of a) the instructional responsibilities of each staff member; b) the breakdown of each of the school's on-going programs, into grades or levels, or some combination of grades and levels; and c) the various texts and reading materials currently used by each teacher in each program.

First, the staff identified the school's on-going instructional programs: science, reading, social studies, mathematics, language arts, art, music, physical education, health, foreign languages, and student activities. Next, each of these programs was disaggregated into its grades and supplementary programs and, at the same time, the staff members who were responsible for each sub-program were identified. Finally, the principal obtained a listing of the materials and texts used by each teacher in the area(s) of his or her responsibility.

When they had obtained this information, the principal and the administrative staff produced a series of flowcharts, one for each major instructional program. The

Figure 2: A Visual Display of the Reading Program in Lakeview Elementary School, Sapphire School District

PROGRAM	TEACHER	MATERIALS
READING — Kindergarten	Alicia	SWRL*
	Don	SWRL
	Marnie	SWRL
Grade 1	Jane	SF (2-6)**
	Louis	HM Supp (2-4)***
	Pat	HM (3)
	Manuel	HM (2, 3); Vowels
	Ann	Library
	Pratis	Indiv. remedial reading
	Anne	Phys. Ed.—motor skills
	Joe	Art—shapes
	Fran	Music—motor skills
Grade 2	Leslie	HM (4, 5); SRA kits
	Roberto	HM (5, 6); SRA kits
	Dorothy	SF (4-12)
	Marnie	HM (4, 5); pre-primer
	Ann	Library
	Pratis	Indiv. remedial reading
	Joe	Art—shapes
Grade 3	Alec	SF (3)
	Diane	SF (3)
	Thomasyne	HM (6-8)
	Ann	Library
	Pratis	Indiv. remedial reading
Grade 4	Linda	HM (6-10)
	Gilbert	HM (9)
	Sheila	HM (6); SRA kits
	Koto	HM (10)
	Juan	HM (9, 10)
	Ann	Library
	Pratis	Indiv. remedial reading
Grade 5	Fred	HM (11)
	Lynn	HM (11)
	JoAnn	SRA****
	Laura	HM (11)
	Pratis	Indiv. remedial reading
Educable M.R.	Doris	Indiv. special instruction
	Pratis	Library
Speech	Jill	Indiv. speech instruction
Supp. Reading	Sharon	Indiv. supp. reading
Library-Media	Pratis	Individual/group research

*SWRL - South West Regional Laboratory
**SF - Scott Foresman
***HM - Houghton Mifflin
****SRA - Science Research Associates

chart shown here which was produced for the reading program indicates several interesting things about Lakeview's reading program. First it reveals the wide range of materials used within the school and more importantly, the diversity of reading materials used by teachers within and across grade levels. Second, it points out the importance of the special teachers to the total reading program. For example, the work of the four regular grade one teachers is supported and complemented by as many as four special teachers. Third, the chart indicates that each reading grade breaks down into levels — grade one, for instance has five Scott Foresman levels and two Houghton Mifflin levels. Fourth, it shows that there is a substantial emphasis at Lakeview on assisting disadvantaged children and those with learning/reading difficulties. And fifth, in addition to illustrating how the reading program for Lakeview School was currently organized the chart also makes available other information which might facilitate later decision-making. For example, it indicates the extent to which "pre-packaged" reading programs are being used at Lakeview. Since many of these programs contain program objectives that might be used by teachers, such a program could prove to be a useful starting point in the implementation of Component Three.

CLASSROOM

Used at the classroom level, a Limited Function Analysis enables individual teachers to make explicit:

1. The main elements of their courses — the major "chunks or units" of content covered by them and their students during their courses;
2. The breakdown of each of these units into its major topics; and
3. The interrelationships between the units and the major topics.

How detailed such an analysis should be will depend on each teacher's need for information. If, for instance, a teacher would like to identify not only units and topics, but also the related objectives, the disaggregation will probably consist of at least four or five levels of detail.

Example One — General Science, Grade Nine

In Sapphire School District, for example, Ms. Sheffield, a ninth grade general science teacher,

developed a five level flowchart for her course. She began by identifying three major "units" of content: (1) physical science, (2) chemical science, and (3) life science. The disaggregation to the first level is shown.

Next, she determined that the content for physical science consisted of four topics: heat, light, sound, and properties of matter. In addition, Ms. Sheffield decided that in the section on heat, three sub-topics would be covered: temperature, transference of heat, and heat energy. The teacher then had three levels of disaggregation.

Each of the minor topics in level three had a set of program objectives associated with it and these program objectives constituted level four in the disaggregation. Finally, each of these program objectives were then broken out into a set of objectives of greater specificity — the daily objectives, which now gave her five levels of disaggregation.

Disaggregation of General Science 9

PROGRAM	LEVEL 1 (Major "units" of content)
General Science 9	Physical Science Chemical Science Life Science

Disaggregation of General Science 9 - Showing Physical Science to Level Three

PROGRAM	LEVEL 1 Major Units	LEVEL 2 Major topics	LEVEL 3 Minor topics
General Science 9	Physical Science	Heat	Temperature Transference Energy
		Light	
		Sound	
		Properties of Matter	
	Chemical Science		
	Life Science		

Disaggregation of General Science 9 - Showing Physical Science to Level Five

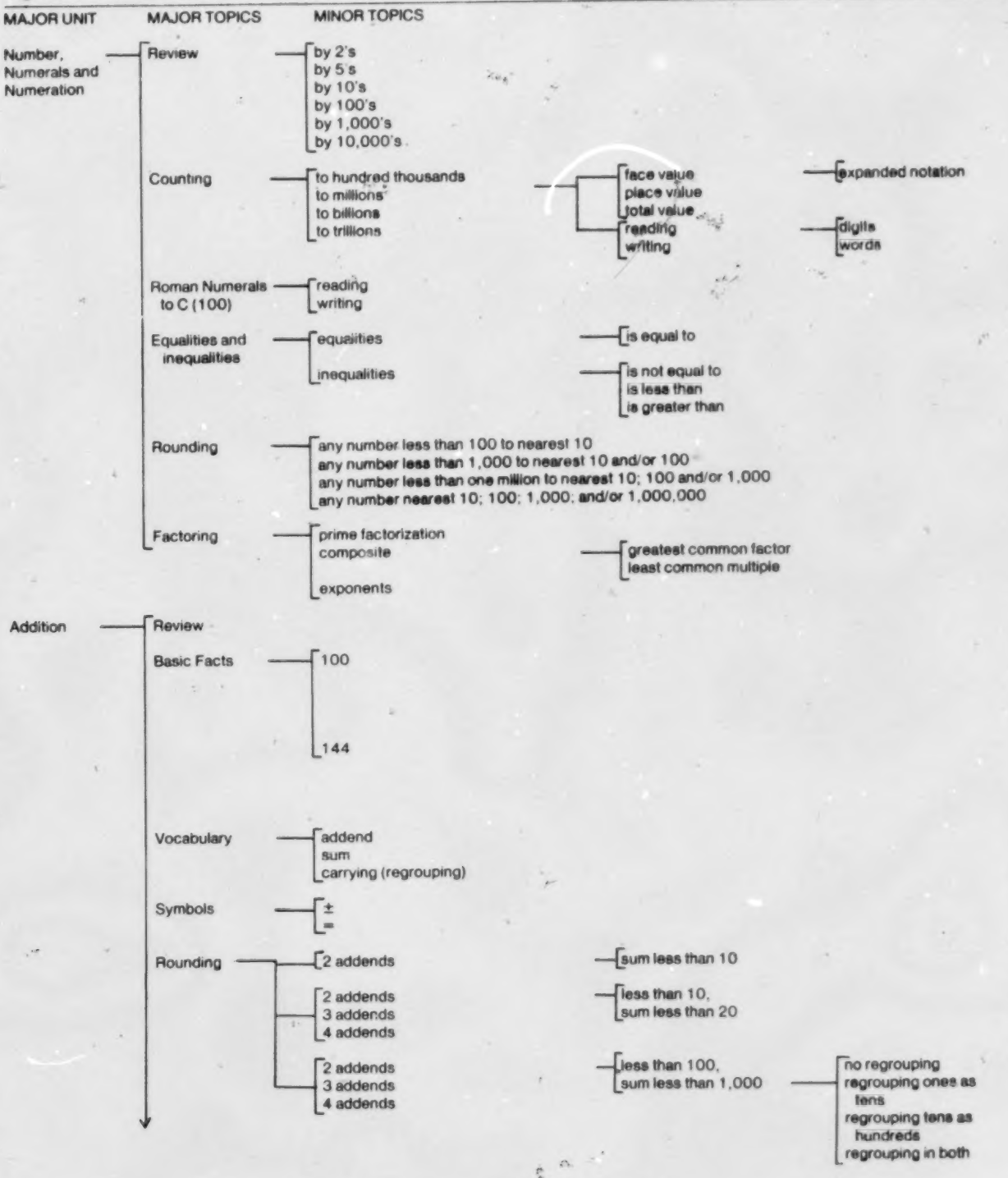
PROGRAM	LEVEL 1 Major Units	LEVEL 2 Major Topics	LEVEL 3 Minor Topics	LEVEL 4 Program Objectives	LEVEL 5 Daily Objectives
General Science 9	Physical Science	Heat	Temperature	P.O. 1	O_1 O_2 O_3
				P.O. 2	O_4 O_5
			Transference Energy		
		Light			
		Sound			
		Properties of Matter			
	Chemical Science				
	Life Science				

Example Two — Arithmetic, Grade Five

Another teacher in Sapphire School District applied a Limited Function Analysis to his fifth grade arithmetic program. In this case, Mr. Swartz wanted to make the objectives for the arithmetic program explicit, but he had been having difficulty in preparing a list of objectives which were discrete, yet comprehensive.

He began by identifying the five major units of instruction for fifth grade arithmetic: 1) Numbers, Numerals and Numeration, 2) Addition, 3) Subtraction, 4) Multiplication, and 5) Division. Then, in turn, each unit was disaggregated into a set of major topics, each major topic into a set of minor topics, and, in some cases, the minor topics into sub-topics of even greater specificity. Since his main goal in doing this activity was to write objectives for the program, each topic was disaggregated to whatever level of detail

Figure 3: A Visual Display of the Disaggregation of Arithmetic - Grade Five, Sapphire School District



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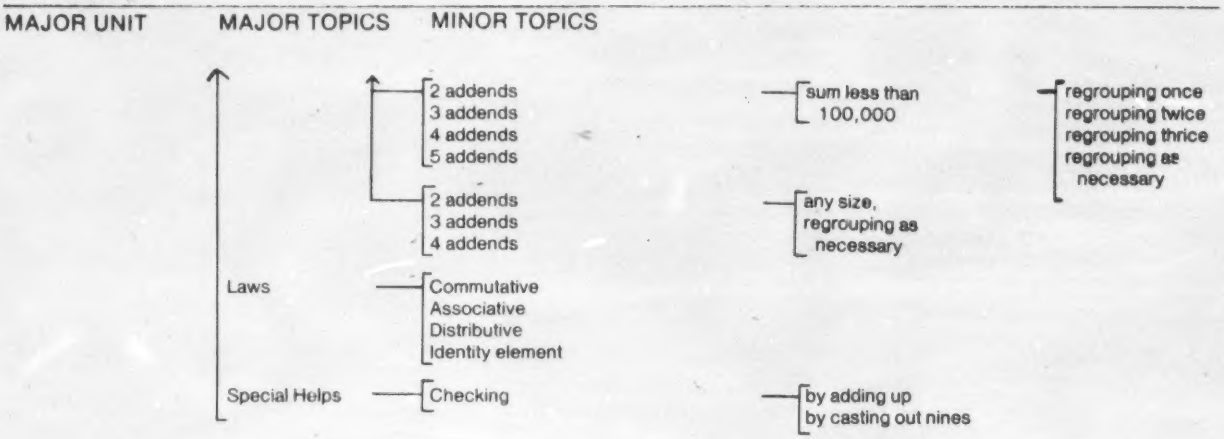


seemed necessary in order to write meaningful objectives. For example the first major unit, Numbers, Numerals and Numeration, was disaggregated into six major topics and each of these major topics was disaggregated into various minor topics. For the major topics of Review, Roman Numerals, and Rounding, Mr. Swartz felt that the minor topics were sufficiently detailed to enable the writing of meaningful objectives. For the other three major topics, however, he felt a need to disaggregate the minor topics still further before developing objectives. The resulting flowcharts relevant to the first two units — Numbers, Numerals, and Numeration; and Addition — are shown here.

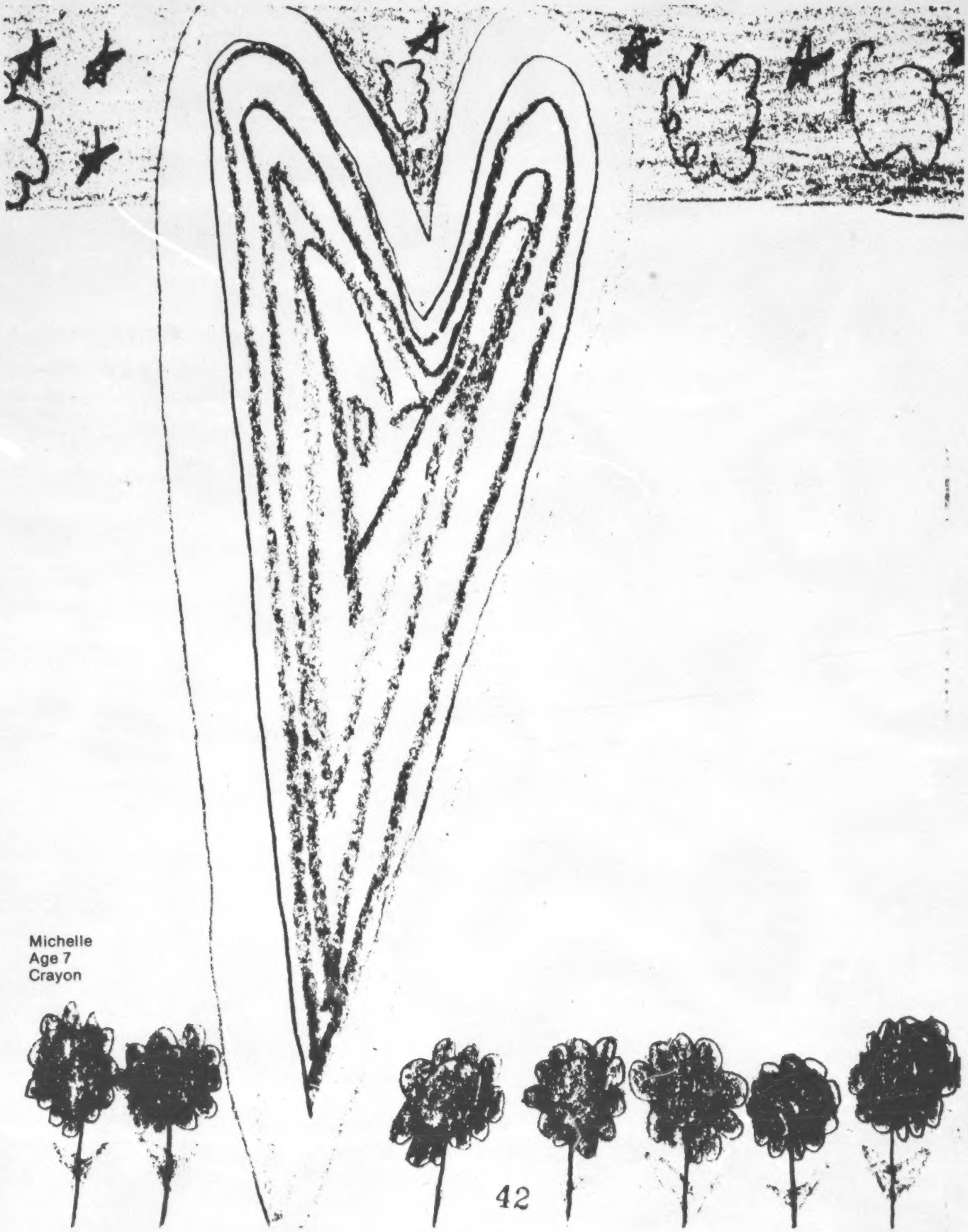
As these charts were developed, both Ms. Sheffield and Mr. Swartz recognized that they could serve several purposes. They could be used, for instance, during parent-teacher conferences to explain the course content. Although in the past, the teachers had shown parents the tables of contents in their texts and copies of weekly tests and other assignments which had been given to the students, these had often left the parents confused. The charts, on the other hand, made their expectations of the students explicit. Parents could see at a glance what the students had covered and what remained to be covered, and they could get a better sense of the whole than was possible from a table of contents or from an accumulation of arithmetic test papers. The students, too, could get a better sense of where they were in the program, what was expected of them, and what still remained to be done. In addition, the teachers' colleagues were given more explicit pictures of the on-going activities in Ms. Sheffield's and Mr. Swartz' classrooms than was previously available.

Summary

The Limited Function Analysis provides a visual display of the hierarchical relationships existing among functions and programs at the district, building, or classroom levels. At the district level, the display is generated by a small group of individuals who commit to paper the many programs and function areas on-going in the district. This approach differs from the Full Systems Analysis in the amount of data collected prior to developing the district's flowcharts.

At the building level, the same technique is applied to a narrower scope of functions and programs. The result is a flowchart of building programs and functions.

For classroom use, this alternative provides a mechanism for showing the logical relationships between all portions of instructional content. In addition, it allows teachers to show these relationships graphically as an aid to planning, evaluation, and communication.



Michelle
Age 7
Crayon

4. A Function Analysis Based on a Fiscal Chart of Accounts

As described earlier, the first component of SPECS requires the systematic collection and visual display a variety of information. This serves to help a district identify at what level it wishes to document its program outcomes and processes, and/or collect cost accounting data.

We have examined two possible approaches to this data-gathering and data-analysis task. Both began with the identification of a district's major function areas and then proceeded with the development of a branching flowchart that represented the disaggregation of each major function into its related subfunctions.

Two Alternatives

This third approach to Component One — A Function Analysis Based on a Fiscal Chart of Accounts — is most valuable for the district that wants to identify only those specific categories for which program cost-data will be assessed. Unlike the first two approaches, district personnel can approach this task from either of two starting points. First they can begin with the list of functions suggested in the Office of Education's Revised **Handbook II**[3] or they may instead choose to use the existing chart of accounts which the district is currently using. The primary task for a school district choosing this approach is simply to identify those functions for which costs will be aggregated. As in the previous approaches, the disaggregation of functions may then be displayed by developing a flowchart for each major function area that has been identified. Should the district wish at some future time to identify at what level of each function it wishes to document program outcomes and processes, then, typically, the appropriate functions would need further disaggregation using procedures similar to those carried out in the Emerald and Sapphire Districts in the first two approaches.

Materials which were developed in the Diamond School District which used **Handbook II** and the Ruby School District which used their current chart of accounts to identify and flowchart current district functions have been included to illustrate this third approach.

REVISED HANDBOOK II

This task was carried out in Diamond by a small committee comprised of the Superintendent, the Assistant Superintendent for Finance, the Business Manager, the Budget Chairperson, and the SPECS Coordinator. First, the committee prepared a list of the functions and subfunctions displayed in Revised **Handbook II**. The committee, then, examined each function and subfunction in turn and, using the district's current budget as a guide, raised questions concerning the district's present budgeting and cost accounting procedures. They examined each function and subfunction, discussed it in the light of future budgeting and cost accounting plans, and then marked with an asterisk each function or subfunction for which cost data would be aggregated during the next fiscal year.

Figure 4: A List of Functions and Subfunctions from "Handbook II" to which Cost Data Will Be Assessed in Diamond School District

HANDBOOK II FUNCTIONS AND SUBFUNCTIONS

- *1000 **INSTRUCTION**
- *1100 **Regular Programs**
- *1110 Elementary Programs
- *1120 Middle/Junior High Programs
- *1130 High School Programs
- 1131 Preparatory, Postsecondary Education Programs
- 1132 Preparatory, Postsecondary Employment Programs
- 1139 Other High School Programs
- 1190 Other Regular Programs
- *1200 **Special Programs**
- 1210 Programs for Gifted and Talented
- *1220 Programs for Mentally Retarded
- 1230 Programs for Physically Handicapped
- *1240 Programs for Emotionally Disturbed
- 1250 Programs for Culturally Different
- *1260 Programs for Pupils With Learning Disabilities
- 1290 Other Special Programs
- 1300 **Adult/Continuing Education Programs**
- 1310 Adult Basic Education Programs
- 1320 Advanced Adult Education Programs
- 1330 Occupational Programs
- 1340 Upgrading in Current Occupation Programs
- 1350 Retraining for New Occupation Programs
- 1360 Special Interest Programs
- 1370 Life Enrichment Programs
- 1390 Other Adult/Continuing Education Programs
- *2000 **SUPPORTING SERVICES**
- *2100 **Support Services — Pupils**
- *2110 Attendance and Social Work Services
- *2111 Service Area Direction
- *2112 Attendance Services
- *2113 Social Work Services
- 2114 Pupil Accounting Services
- 2119 Other Attendance and Social Work Services
- *2120 Guidance Services
- *2121 Service Area Direction
- *2122 Counseling Services
- 2123 Appraisal Services
- *2124 Information Services
- 2125 Record Maintenance Services
- 2126 Placement Services
- 2129 Other Guidance Services
- *2130 Health Services
- *2131 Service Area Direction
- *2132 Medical Services
- *2133 Dental Services
- *2134 Nurse Services
- 2139 Other Health Services
- *2140 Psychological Services
- *2141 Service Area Direction
- *2142 Psychological Testing Services

[3]Charles T. Roberts and Allan R. Lichtenberger, **Financial Accounting: Classifications and Standard Terminology for Local and State School Systems** (Washington: U.S. Government Printing Office, OE-73-11800, 1973).

*2143 Psychological Counseling Services
2144 Psychotherapy Services
2149 Other Psychological Services
*2150 Speech Pathology and Audiology Services
*2151 Service Area Direction
*2152 Speech Pathology Services
2153 Audiology Services
2159 Other Speech Pathology and Audiology Services
***2200 Support Services — Instructional Staff**
*2210 Improvement of Instruction Services
*2211 Service Area Direction
*2212 Instruction and Curriculum Development Services
2213 Instructional Staff Training Services
2219 Other Improvement of Instruction Services
*2220 Educational Media Services
*2221 Service Area Direction
*2222 School Library Services
*2223 Audiovisual Services
2224 Educational Television Services
2225 Computer-Assisted Instruction Services
2229 Other Educational Media Services
***2300 Support Services — General Administration**
*2310 Board of Education Services

***2300 Support Services — General Administration**
*2310 Board of Education Services
*2311 Service Area Direction
*2312 Board Secretary Services
*2313 Board Treasurer Services
*2314 Election Services
*2315 Legal Services
*2316 Tax Assessment and Collection Services
*2317 Audit Services
2319 Other Board of Education Services
*2320 Executive Administration Services
*2321 Office of the Superintendent Services
*2322 Community Relations Services
*2323 Staff Relations and Negotiations Services
*2324 State and Federal Relations Services
2329 Other Executive Administration Services
***2400 Support Services — School Administration**
*2410 Office of the Principal Services
2490 Other Support Services—School Administration
***2500 Support Services — Business**
*2510 Direction of Business Support Services
*2520 Fiscal Services
*2521 Service Area Direction
*2522 Budgeting Services
*2523 Receiving and Disbursing Funds Services
*2524 Payroll Services
*2525 Financial Accounting Services
*2526 Internal Auditing Services
*2527 Property Accounting Services
2529 Other Fiscal Services
*2530 Facilities Acquisition and Construction Services
*2531 Service Area Direction
*2532 Land Acquisition and Development Services
*2533 Architecture and Engineering Services
*2534 Educational Specifications Development Services
*2535 Building Acquisition, Construction, and Improvements Services
2539 Other Facilities Acquisition and Construction Services
*2540 Operation and Maintenance of Plant Services
*2541 Service Area Direction
*2542 Care and Upkeep of Buildings Services
*2543 Care and Upkeep of Grounds Services
*2544 Care and Upkeep of Equipment Services
*2545 Vehicle Servicing and Maintenance Services (other than buses)
*2546 Security Services
2549 Other Operation and Maintenance of Plant Services
*2550 Pupil Transportation Services
*2551 Service Area Direction
*2552 Vehicle Operation Service
2553 Monitoring Services
*2554 Vehicle Servicing and Maintenance Services
2559 Other Pupil Transportation Services
*2560 Food Services
*2561 Service Area Direction
*2562 Food Preparation and Dispensing Services
2563 Food Delivery Services
2569 Other Food Services
*2570 Internal Services
*2571 Service Area Direction
*2572 Purchasing Services
2573 Warehousing and Distributing Services
*2574 Printing, Publishing, and Duplicating Services
2579 Other Internal Services
2590 Other Support Services — Business
***2600 Support Services — Central**
*2610 Direction of Central Support Services
*2620 Planning, Research, Development, and Evaluation Services
*2621 Service Area Direction
2622 Development Services
*2623 Evaluation Services
*2624 Planning Services
*2625 Research Services
2629 Other Planning, Research, Development, and Evaluation Services
2630 Information Services
2631 Service Area Direction
2632 Internal Information Services
2633 Public Information Services
2634 Management Information Services
2639 Other Information Services
*2640 Staff Services
*2641 Service Area Direction
*2642 Recruitment and Placement Services
2643 Staff Accounting Services
2644 Inservice Training Services (for noninstructional staff)
*2645 Health Services
2649 Other Staff Services
2650 Statistical Services

2651 Service Area Direction
2652 Statistical Analysis Services
2653 Statistical Reporting Services
2659 Other Statistical Services
*2660 Data Processing Services
*2661 Service Area Direction
2662 Systems Analysis Services
*2663 Programming Services
*2664 Operations Services
2669 Other Data Processing Services
2690 Other Support Services — Central
2990 Other Supporting Services
***3000 COMMUNITY SERVICES**
***3100 Direction of Community Services**
3200 Community Recreation Services
3300 Civic Services
***3400 Public Library Services**
3500 Custody and Care of Children Services
***3600 Welfare Activities Services**
3800 Nonpublic School Pupils Services
3900 Other Community Services

*Functions for which costs will be aggregated during the next fiscal year in Diamond School District

After each item on the list had been examined in this way, the list was given to the SPECS Coordinator with a request that a flowchart of the asterisked functions and subfunctions be developed. To carry out this request, the SPECS Coordinator first developed a flowchart that displayed all of the functions and subfunctions which had been identified by the committee. The product which follows was a display of all activities from **Handbook II** for which cost data would be collected during the next fiscal year in the Diamond District. (See Figure 5.)

Note that in this flowchart some activities were disaggregated to four distinct levels whereas others were disaggregated to only three levels. Such a breakout illustrates that Diamond personnel intended that while some of their costs would be assessed across broad categories, others would be assessed to specific programs. For example, regular instructional costs would be assessed broadly across the levels of education offered in the district — elementary, junior high, and high school levels. Special instructional costs, on the other hand, would be assessed more precisely to specific programs — programs for the mentally retarded, programs for the emotionally disturbed, and so forth. As shown by that portion of the flowchart related to supporting services, it was decided that most costs in this category would be assessed to relatively specific services such as medical, dental, and nursing services.

Note also that the location at which activities take place, or at least the location where responsibility for the activity rests, has not been included in this flowchart. Should the district desire to produce reports for each building or administrative unit in the district, locations would need to be inserted. With its present disaggregation and coding system, personnel in Diamond are, however, restricted to assessing costs only on a district-wide basis.

THE EXISTING CHART OF ACCOUNTS

In the Ruby School District the existing chart of accounts was used rather than **Handbook II** as the basis for the Function Analysis Based on a Fiscal Chart of Accounts.

First, an examination of the district's chart of accounts was made and eight major function categories were identified: administration, instruction, attendance and health services, transportation services, plant operation, plant maintenance, food services, and student body activities and community services. Second, for each major function category, a set of subfunctions was identified. Third, in some cases these were subdivided into even more specific subfunctions. And fourth, a flowchart showing the major function categories disaggregated into their subfunctions was developed. (See Figure 6.)

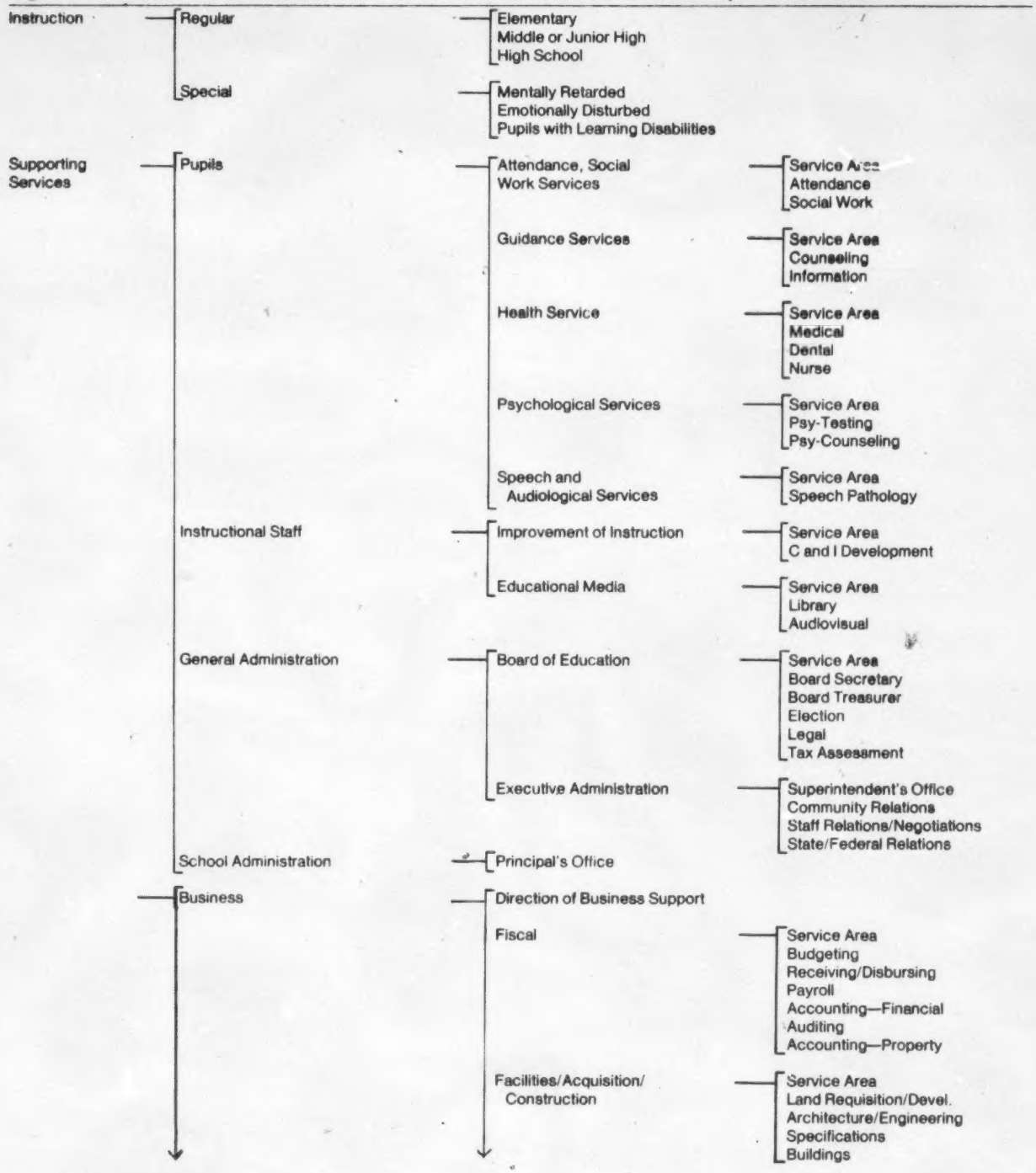
Summary

The purpose of a Function Analysis Based on a Fiscal Chart of Accounts is to provide a basis for preparing a function or program-based fiscal accounting structure. Two alternative methods for performing such an analysis have been suggested.

In the first case, the categories listed in **Handbook II** Revised were used as a starting point for determining account categories. With this method, those functions which were not applicable to the particular district were eliminated while those functions which were applicable to the district were flowcharted.

In the second case, the district's own chart of accounts was used as a starting point. From the chart of accounts, function areas were identified, subfunctions were indicated, and levels of desired disaggregation were specified. With a method similar to that used in the other approaches, a flowchart of district programs and functions was then developed.

Figure 5: Flowchart of District Functions for Diamond School District Based Upon Handbook II



continued

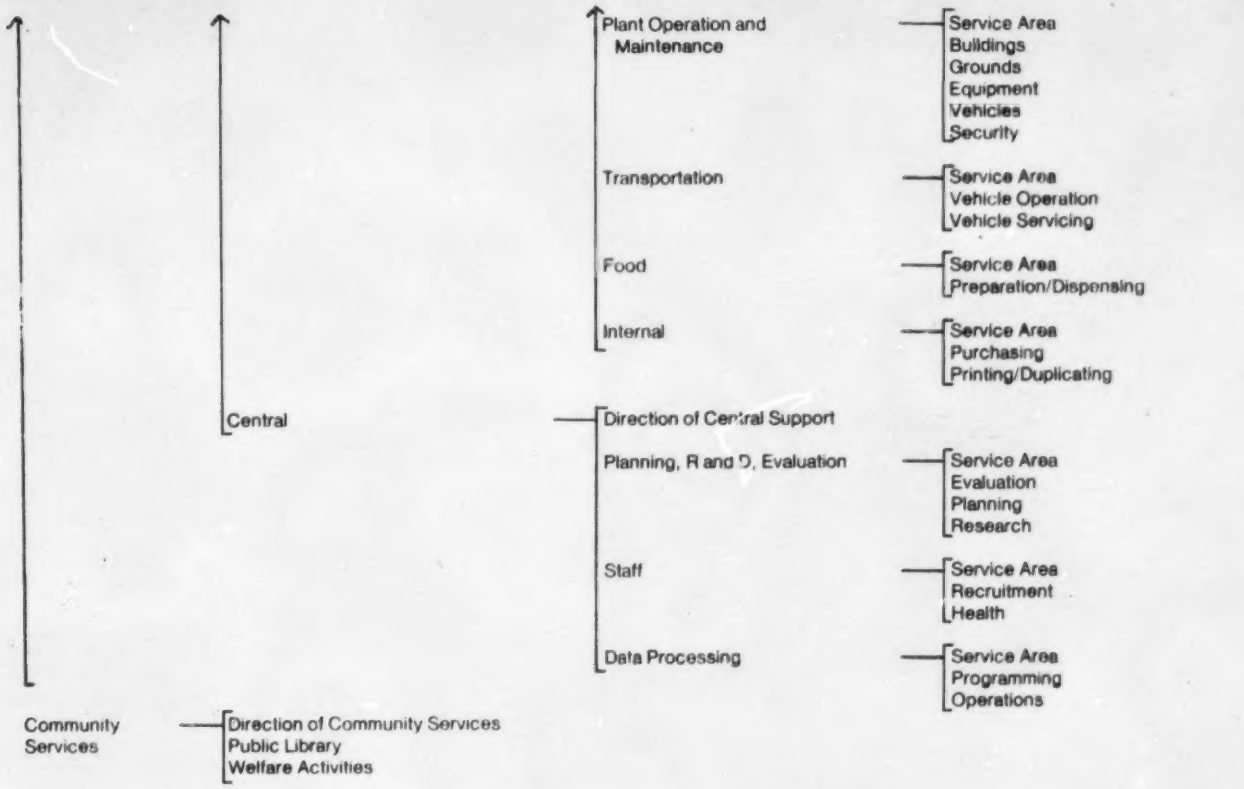

Community Services
Direction of Community Services
Public Library
Welfare Activities
Central
Direction of Central Support
Planning, R and D, Evaluation
Service Area
Evaluation
Planning
Research
Staff
Service Area
Recruitment
Health
Data Processing
Service Area
Programming
Operations
Plant Operation and Maintenance
Service Area
Buildings
Grounds
Equipment
Vehicles
Security
Transportation
Service Area
Vehicle Operation
Vehicle Servicing
Food
Service Area
Preparation/Dispensing
Internal
Service Area
Purchasing
Printing/Duplicating

Figure 6: Flowchart of District Functions for Ruby School District Based Upon the Existing Chart of Accounts

LEVEL 1 Major Function	LEVEL 2 Subfunction	LEVEL 3 Subfunction	LEVEL 4 Subfunction
Administration	Board of Education Services		
	Board Secretary Services		
	Board Treasurer Services		
	Election Services		
	Tax Collection Services		
	Legal Services		
	Office of the Superintendent Services		
	Personnel Services		
	Research Services		
	Census Enumeration Services		
	Business Administration Services		
	Fiscal Control Services		
	Buildings and Grounds Services		
	Purchasing Office Services		
	Printing/Publishing Services		
	Equipment Services		
	Other Administrative Services		
Instruction	Office of the Principal Services		
	Supervisory Services		
	Classroom Instruction Services		
	Other Instruction Services	Library Services	
		Audiovisual Services	
		Guidance Services	
		Psychological Services	
		Television Services	
	Equipment Services		
Attendance and Health Services	Attendance Services		
	Health Services	Professional and Technical Health Services	Medical Services
			Dental Services
			Nursing Services
			Other
		Nonprofessional and Technical Health Services	
	Equipment Services		
	Other		
Pupil Transportation Services	Vehicle Operation Services		
	Vehicle Maintenance Services		
	Care/Upkeep of Equipment Services		
	Other		
Operation of Plant	Site Acquisition/Development Services		
	Care of Grounds Services		
	Care of Buildings Services		
	Vehicle Servicing Services		
	Care/Upkeep of Equipment Services		
	New Buildings Services		
Maintenance of Plant	Upkeep of Grounds Services		
	Upkeep of Buildings Services		
	Upkeep of Equipment Services		
	Other		
Food Services and Student Body Activities	Food Services		
	Student Body Activities Services		
	Care/Upkeep of Equipment Services		
	Other		

continued

LEVEL ONE	LEVEL TWO	LEVEL THREE	LEVEL FOUR
Community Services	Recreation Services		
	Civic Services		
	Public Library Services		
	Custody/Care of Children Services		
	Welfare Activities Services		
	Nonpublic School Pupil Services	Instructional Services	
		Attendance and Health Services	Attendance Services
			Health Services
		Transportation Services	
	Care/Upkeep of Equipment Services		
	Other		

Jenny Loughlin
Age17
Photograph (enlargement)

5. Benefits

Regardless of the approach chosen to implement Component One, one might raise the questions, "So what? What are the benefits of such an analysis? How will the district, school, or classroom be affected by such an activity? Is it really worth the work involved?"

A definitive answer to these and similar questions can be provided only by the experience of individual districts. In a more generalized perspective, however, several benefits can accrue which will be realized over time and to varying degrees by all district personnel.

1. Organizational Study

A primary responsibility of administrators is to assure that a school district or school has been organized to provide effective execution of all functions and programs. Similarly, teachers have the responsibility of organizing their classrooms to achieve maximum learning. By graphically illustrating the relationships between various programs and functions, Component One provides a way for educators to examine programs for which they are responsible and to identify the ways in which these programs are related to one another. Component One helps to describe graphically, the "what is" state of a district, school, or classroom.

2. Organizational Change

With a clear statement of the "what is" state of the district, school, or classroom, one can then ask the next question. "Is this the way we want it to be?" That is, with a clear conception of the present organizational status, one has a valuable data base for looking to the future, reaffirming those organizational aspects that are valuable, and modifying those that are not.

3. Personnel Assignments

The information provided for organizational study or change also provides a data base for examining personnel assignments. Once the relationships between functions have been clearly identified, it is possible to examine staffing patterns which will effectively carry out those functions. In many organizations, job titles and responsibilities actually carried out have been allowed to slip into serious mis-match. The analysis called for in Component One provides a tool for re-examining functions to be performed so that personnel assignments can be made to carry out those functions most effectively.

4. Team Building

The process of critically examining the district's programs and functions helps build a team of involved, committed people. As district personnel deal with the complexities of the many programs and functions, a common bond of experience will be built that will carry over into all areas of the district's operation.

5. Communication

The flowcharts provide a "bird's eye view" of a district, school, or classroom. With such a view, relationships between daily activities and the overall structure can be readily seen, thereby providing a powerful tool for communication among district personnel, the board of education, and the community. The flowcharts provide visible proof that attention has been given to making most effective use of people and programs.

6. Management Information

Related to benefits in communication is the improved flow of management information. Each line on a flowchart indicates a point at which data can be accumulated. For fiscal purposes, these points can be identified as cost centers to provide summarized cost information for all programs and activities falling to the right of that point on the chart. Similarly, program outcome or performance data can be accumulated for the same points. Thus, comparable cost and performance data can be accumulated for each program or subprogram in the district. With such data, information about the full range of on-going programs can be used to make better organizational and programmatic decisions.

7. Chart of Accounts

The Component One flowchart provides the basic skeleton for the district's accounting and budgeting procedures. With a flowchart of district functions, costs can be accounted for and budgets can be built to reflect the primary mission of the school district. The Component One flowchart, therefore, provides the program structure necessary to begin the program budgeting process detailed in the SPECS **Component Two Implementation Booklet**.

8. "Spin-off" Benefits

Many districts which are faced with the task of responding to demands for "accountability" are attempting to implement "management by objectives" approaches and a variety of systems-based management techniques. Too often, attempts by districts to respond to these changes are made without a clear notion of the whole or a definite idea of the potential impact on individuals and programs. With a clear description of the district's program structure, it is possible to determine points, such as cost and performance information centers, where management objectives should be developed. This provides a distinct, district-determined mechanism for defining what "accountability" really means. For instance, if a given subfunction is identified as a cost center and a performance information aggregation center, it is then possible to write objectives for the performance of that subfunction. In so doing, data can be accumulated about the inputs, processes and outputs of that subfunction. This is the essence of an "accountability" system, but it is accountability based on the district's own set of operational conditions, not a system imposed from the outside. Component One provides a first step in giving the district its own capacity for maintaining a sound administrative information system.